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On Terms

A Rule for the Use of the Term, "Rule-Governed Behavior"

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It is generally agreed that human behavior appropriate to the current circumstances may arise from the individual having experienced the consequences of that behavior or from having been told about the consequences. Common wisdom and some nonbehavioral kinds of psychological accounts draw two somewhat contrasting inferences from these well-known facts of human behavior.

On the one hand, it might be said that one individual has learned through trial-and-error, much as a nonhuman animal would, whereas another individual has acquired "information" about the current circumstances through the use of language, a uniquely human phenomenon. On the other hand, it might be said that the behavior of both individuals became "appropriate" to the current circumstances for essentially the same reason, namely that both individuals have formed an "expectancy" (or "internal rule") of the sort: "If I do X, Y will happen." Direct experience and verbal descriptions are, by this nonbehavioral account, simply different ways to construct the relevant "expectancy." To the extent that these two kinds of experience result in the same "expectancy," the behavior resulting from the "expectancy" will be the same. Behavioral approaches find little of value in these accounts since the critical elements (e.g., "information" and "expectancy") do not direct us to events that may be used to increase our control of behavior.

We wish to acknowledge the benefit of extensive discussions with our graduate students and with our colleague Steve Hayes, who, nevertheless, may disagree with the final form of our statement. Reprints may be obtained from either author, % the Department of Psychology, University of North Carolina, Greensboro, NC 27412-5001.

Skinner (1957, pp. 357–367; 1969, pp. 133–171) has been interested in cases like these and has offered an interpretation with two important implications. First, the control of the listener's behavior by instructions can be interpreted as an instance of control by a discriminative stimulus and, as such, displays no fundamental properties beyond those describable with our basic technical terms. Although the *form* of the discriminative stimulus might be unusually complicated, and perhaps even uniquely operative with humans, the classes of functional relations are, by this interpretation, familiar. In many interesting cases, for example, the discriminative stimulus probably would have to be described as a relational frame of the form, "If behavior *X* occurs in the presence of situation *Y*, consequence *Z* will follow." This is a highly abstract form of discriminative stimulus. But the important point is that the relational frame would be interpreted as a property of the environment whose control in the present circumstance results from a history of differential reinforcement with respect to other specific instances of relational frames of the same sort. That is, the control would be regarded as discriminative (Michael, 1980).

The second implication of Skinner's analysis is that if instructional control is interpretable as discriminative control, the kinds of variables that affect discriminative control generally should affect instructional control. It follows, for example, that behavior evoked by instructions would sometimes function differently from similar-appearing behavior that had been shaped by direct contact with the current contingencies. Differences might be revealed in the speed with which behavior adjusts when the

current contingencies are changed. Or different features of the current environment might control the two different instances of behavior. The distinction between rule-governed behavior and contingency-shaped behavior usefully emphasizes the complexity of the controlling events in the current situation. Finally, a very special reinforcement history is required in order for instructions about contingencies to evoke the appropriate behavior. Differences in the effectiveness of instructions that could be of great practical concern to teachers or clinicians, for example, might be traceable to differences in the relevant reinforcement histories (Galizio, 1979). This last point could easily be overlooked if one viewed direct contact with current contingencies and instructions about those contingencies merely as alternative ways to establish essentially the same "expectancy" from which the appropriate behavior is derived. In contrast to the nonbehavioral accounts, this analysis points directly to classes of events that should foster greater control of behavior.

This second implication is emphasized by the contrasted pair of terms in the phrase, "rule-governed behavior versus contingency-shaped behavior." To the extent that this phrase reminds us that a topography can be appropriate to current contingencies as a result of different kinds of past contingencies, the phrase is useful. The term *rule-governed behavior,* however, often seems to be used as if it were a technical term on a par with, for instance, discriminated and nondiscriminated operants. The term is being used as if it were appropriate to ask, in a particular case, whether behavior that is appropriate to the current contingencies is occurring: (a) because it has been followed by the relevant consequence in the present circumstances, (b) because it has been prompted by a discriminative stimulus whose control was established in other circumstances, or (c) because it has been prompted by instructions in the form of rules about the current contingencies. Such usage encourages the view that control by rule-like instructions operates according to *principles* that are unique to human language. But this is precisely the position that Skinner's interpretation calls into question. For at least some behavior analysts, the power of Skinner's interpretation is that instructional control and control by "non-verbal" discriminative stimuli are parsimoniously described in terms of the same small set of technical terms. Certainly, the *fact* of instructional control was not revealed by behavior analysts. What is new is the possibility of a systematic interpretation that is continuous with interpretations of simpler cases with nonhuman animals.

Technical terms in the experimental analysis of behavior are the necessary elements which enable analysis of complex events. They reflect independent sources of control that compliment each other. As we move from one arena of concern to another, the terms may be further differentiated as a result of bringing the analysis into contact with elements of concern to those involved primarily in that arena. For example, several different forms of discriminated operants are identified in *Verbal Behavior* (Skinner, 1957) such as echoics, tacts, textuals, along with a form of nondiscriminated operant, the mand. It would be most unfortunate if one were to make the category error of concluding that echoics, textuals, tacts, and mands were necessary *additional* terms in an experimental analysis of behavior with a role comparable to that of discriminated and nondiscriminated operants.

We do not wish here to enter the debate about whether or not Skinner's interpretation of these kinds of cases will turn out to be satisfactory. The answer to that kind of question is properly derived from careful theoretical analysis based on data. Our point is that using the term *rule-governed behavior* as if it were a technical term may encourage a careless acceptance of the view that the phenomena of interest do, in fact, require a fundamentally new and different kind of account. Unless the interpretations of complex human phenomena derive from careful, detailed, and rigorous use of technical terms and concepts, it will be hard to learn whether or not the interpretations are satisfactory.

In view of these problems with the use of the term *rule-governed behavior,* and with little hope that the problems will be rectified otherwise, we would like to propose a more guarded use of the term. We urge the substitution of at least some such qualified phrase, as "rule-governed behavior: responses under discriminative control of contingency-specifying stimuli"—the point being to couch the interpretation in the language of our precise technical terms to the extent possible. If the interpretation is in terms of discriminative-stimulus control, then an assessment of the accuracy of such an interpretation in a particular instance would involve at the least all of the factors that Michael (1980) identified as necessary to speak of any event as a discriminative stimulus. If the interpretation is based on motivational control (e.g., Michael, 1982) or on some presently unrecognized kind of control, that should be made clear also in the qualification of the term, *rule-governed behavior,* along with the justifying analysis (see Michael, 1982, for a recent demonstration of this kind of effort).

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